

In the Claims

Please cancel Claims 1 and 10.

Please amend Claims 2, 4, 7-9, 11, 13 and 16-18 as follows:

1. (Cancelled).
2. (Currently amended) A memory circuit, comprising:
an output data bus;
a memory array receiving a memory address and providing output data from a
memory access using the memory address, the memory array comprising a plurality of
memory blocks, and a control circuit providing a timing signal that is asserted at a first
predetermined time earlier than a second predetermined time when the output data
from the memory access is expected to be ready at the output data bus;
a redundant memory circuit receiving the memory address and the timing
signal, and providing output data when the memory address corresponds to a stored
memory address in the redundant memory circuit, the output data being provided at
the first predetermined time, in accordance with the timing signal; and
a selection circuit selecting, for output at the second predetermined time on the
data output bus, between the output data of the memory array and the output data of
the redundant memory circuit; as in Claim 1,
wherein the memory array provides a second timing signal which is asserted to indicate the second predetermined time.

3. (Original) A memory circuit as in Claim 2, wherein the selection circuit performs the selecting according to the second timing signal.

4. (Currently amended) A memory circuit as in Claim [[1]] 2, wherein the redundant memory circuit comprises a first-in-first-out (FIFO) memory that holds the output data of the redundant memory circuit.

5. (Original) A memory circuit as in Claim 4, wherein the FIFO memory comprises a control circuit receiving the timing signal.

6. (Original) A memory circuit as in Claim 5, wherein the control circuit of the FIFO memory comprises toggle flip-flops.

7. (Currently amended) A memory circuit as in Claim [[1]] 2, wherein the redundant memory circuit comprises a plurality of memory blocks.

8. (Currently amended) A memory circuit as in Claim [[1]] 2, wherein the redundant memory circuit comprises address comparators.

9. (Currently amended) A memory circuit as in Claim [[1]] 2, wherein the memory array comprises a pipelined output stage.

10. (Canceled).

11. (Currently amended) A method in a memory circuit, comprising:

receiving into a memory array a memory address for performing an access a memory block within the memory array corresponding to the memory address;

LAW OFFICES OF
MacPherson, Kwok, Chen &
Heid LLP
1762 Technology Drive, Suite 226
San Jose, CA 95110
(408)-392-9520
FAX (408)-392-9262

generating, from the memory array, a timing signal that is asserted at a first predetermined time earlier than a second predetermined time when the output data from the memory access is expected to be ready at an output data bus;

receiving into a redundant memory circuit the memory address and the timing signal;

providing from the redundant memory circuit output data when the memory address corresponds to a stored memory address in the redundant memory circuit, the output data being provided at the first predetermined time in accordance with the timing signal;

as in Claim 10, further comprising generating, from the memory array, a second timing signal indicating that the output data of the memory array is ready; and

at the second predetermined time, selecting between the output data of the memory array and the output data of the redundant memory circuit for output on the data output bus.

12. (Original) A method as in Claim 11, wherein the selecting is performed according to the second timing signal.

13. (Currently amended) A method as in Claim [[10]] 11, wherein the redundant memory circuit holds the output data of the redundant memory circuit in a first-in-first-out (FIFO) memory.

14. (Original) A method as in Claim 13, wherein the FIFO memory is controlled according to the timing signal.

15. (Original) A method as in Claim 14, wherein the timing signal is provided to control a toggle flip-flop.
16. (Currently amended) A method as in Claim [[10]] 11, wherein the redundant memory circuit comprises a plurality of memory blocks.
17. (Currently amended) A method as in Claim [[10]] 11, further comprising comparing, in the redundant memory circuit, the memory address to the stored memory address using address comparators.
18. (Currently amended) A method as in Claim [[10]] 11, wherein the memory array comprises a pipelined output stage.

LAW OFFICES OF
MacPherson, Kwok, Chen &
Heid LLP
1762 Technology Drive, Suite 226
San Jose, CA 95110
(408)-392-9520
FAX (408)-392-9262